



## Performance Tasks

Our goal with “Performance Tasks” is to help the students see the relevance and the cross curricular nature of the science and math subject areas. The performance task also creates a project based environment for the classroom where the students are collaborating and presenting as a team.

### Performance Task: Baseball Bat Analysis

**Overview:**  
The relevance of data analysis plays a role in the selection of the perfect baseball bat.

**Essential Questions:**  
1. How can data analysis be used to select the right equipment?  
2. How can math and science be used in the decision process?

**Overview:**  
This performance task will highlight the importance of data analysis in the selection of the perfect baseball bat. Students will gather information on the different variables on the right of baseball bats and select the optimal bat for a player.

### C.R.A.S.P.

**Project Title:**  
Baseball Bat Analysis

**Goal:**  
The goal is to assist a University baseball team in selecting the most optimal baseball bat for the upcoming season.

**Team:**  
Audience:  
Location:  
Time:

### Baseball Bat Technology

From the cartoon room to the bat swinging robot to the bat breaking machine, the engineers at Eastern Sports are testing the latest sports equipment for durability, performance and handling.

**Video Downloads:** [MP4](#) [MP4](#)

[View Related Learning Connections](#)

### Baseball Bat Technology

From the cartoon room to the bat swinging robot to the bat breaking machine, the engineers at Eastern Sports are testing the latest sports equipment for durability, performance and handling.

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# Defined STEM

Bringing Relevance to the Classroom

## Key Concepts

You can perform a standard search by entering your keyword into the search box.

**Performance Task: Baseball Bat Analysis**

**Problem:**  
The engineering and data analysis play in the selection of the perfect baseball bat.

**Essential Questions:**

- What role does data and mathematical analysis play in choosing the right equipment?
- How can you use math and its applications in the real world?

**Overview:**  
This performance task will highlight critical decision-making skills through the analysis of scientific and mathematical data. Students will gather information on the different variables on the types of baseball bats and decide the optimal bat for a team.

## Related Connections

To browse by subject areas, select on the corresponding box and drill down by topic area.

**Baseball Bat Technology**

From the cannon room to the bat-swinging robot to the bat handle-breaking machine, the engineers at Batco Sports are testing the latest sports equipment for durability, performance and handling.

Video Downloads:

[View Related Learning Connections](#)

## GRASP Concept

The acronym GRASP stands for:

- **G**oal
- **R**ole
- **A**udience
- **S**ituation
- **P**roduct

These elements correspond to the specific elements that are to be addressed in the performance task by the student. (cont)

**GRASP**

**Print View**

**Goal:**  
Your goal is to provide the best baseball team by selecting the most optimal baseball bat for the upcoming season.

**Role:**  
Audience:  
Situation:  
Product:



**Goal:** the goal of the performance task

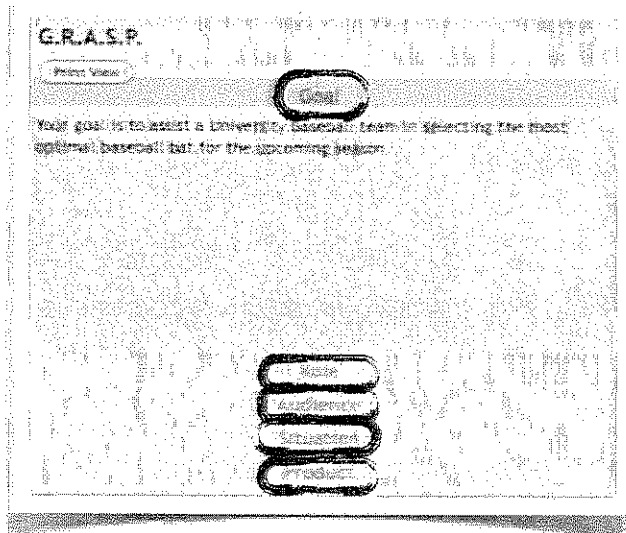
Example: The goal is to assist potential small businesses in conducting a market analysis.

**Role:** the role of the students as they carry out the performance task

Example: You are a consultant with an economic development corporation that has been formed by a small city in Texas.

**Audience:** the target audience to which the finished product/performance will be presented

Example: The target audience is composed of individuals who are/might be interested in starting a small business in your community.



**Situation:** the context

Example: Your community is not big enough to be attractive to large national business chains or franchises; however, the economic development corporation that employs you believes that small businesses could be successful in your community. The corporation also believes that small business start-ups could be encouraged by assisting prospects in conducting a market analysis in the community.

**Product:** the result of the performance task or activity

Example: You are responsible for designing, producing, and presenting, in an electronic format, a training session that identifies economic data sources available in the community and demonstrates how to conduct a market analysis of the community.

\* "Understanding by Design" SSCED Tool Kit, Curriculum, Instruction, and Assessment pg.10, <http://ritter.tea.state.tx.us/ssc/>.